

PATENT COOPERATION TREATY

Translation

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference P2003, 0197WO		Date of mailing (day month year)
FOR FURTHER ACTION See paragraph 2 below		
International application No. PCT/DE2004/000670	International filing date (day month year) 31.03.2004	Priority date (day month year) 31.03.2003
International Patent Classification (IPC) or both national classification and IPC		
Applicant OSRAM OPTO SEMICONDUCTORS GMBH		

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input checked="" type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA EP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/DE2004/000670 ✓

Box No. 1

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language
_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/DE2004/000670 ✓

Box No. II

Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/DE2004/000670 ✓

Box No. IV

Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA 206) to pay additional fees the applicant has:
- ☐ paid additional fees
 - ☐ paid additional fees under protest
 - ☐ not paid additional fees
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:

See supplemental sheet

4. Consequently, this opinion has been established in respect of the following parts of the international application:

☒ all parts☐ the parts relating to claims Nos. _____

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/DE2004/000670

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement							
1.	Statement							
	Novelty (N)	<table border="0"> <tr> <td>Claims</td> <td>3,5-7,11,12,15,17-19,23,24</td> <td>YES</td> </tr> <tr> <td>Claims</td> <td>1,2,4,8-10,13,14,16,20-22</td> <td>NO</td> </tr> </table>	Claims	3,5-7,11,12,15,17-19,23,24	YES	Claims	1,2,4,8-10,13,14,16,20-22	NO
Claims	3,5-7,11,12,15,17-19,23,24	YES						
Claims	1,2,4,8-10,13,14,16,20-22	NO						
	Inventive step (IS)	<table border="0"> <tr> <td>Claims</td> <td>3,5-7,11,12,15,17-19,23,24</td> <td>YES</td> </tr> <tr> <td>Claims</td> <td>1,2,4,8-10,13,14,16,20-22</td> <td>NO</td> </tr> </table>	Claims	3,5-7,11,12,15,17-19,23,24	YES	Claims	1,2,4,8-10,13,14,16,20-22	NO
Claims	3,5-7,11,12,15,17-19,23,24	YES						
Claims	1,2,4,8-10,13,14,16,20-22	NO						
	Industrial applicability (IA)	<table border="0"> <tr> <td>Claims</td> <td>1-24</td> <td>YES</td> </tr> <tr> <td>Claims</td> <td></td> <td>NO</td> </tr> </table>	Claims	1-24	YES	Claims		NO
Claims	1-24	YES						
Claims		NO						
2.	Citations and explanations:							
3.	<p>The present report makes reference to the following documents:</p> <p>D1: US 5 592 193 A (CHEN HSING-YAO), 7 January 1997 (07-01-1997)</p> <p>D2: US 2001/004317 A1 (REITHMEIER MICHAEL), 21 June 2001 (21-06-2001)</p> <p>D3: WO 02/42809 A (TRANSVISION INC), 30 May 2002 (30-05-2002)</p> <p>D4: PATENT ABSTRACTS OF JAPAN, Vol. 0145, No. 77 (P-1146), 21 December 1990 (21-12-1990) & JP 2 247687 A (MATSUSHITA ELECTRIC WORKS LTD), 3 October 1990 (03-10-1990)</p> <p>D5: GB 2 376 287 A (RUSSELL MICHELLE EVELYN; RUSSELL MICHAEL GULVIN (GB)), 11 December 2002 (11-12-2002)</p>							
4.	INDEPENDENT CLAIM 1							
4.1	<p>The present application does not fulfill the requirements of PCT Article 33(1) because the subject matter of claim 1 is not novel within the meaning of PCT Article 33(2).</p> <p>D1 (the references placed in parentheses refer to this document) discloses:</p> <p>A method for the production of an illumination device having a polygonal illumination surface, characterized in that said illumination surface is composed of a plurality of individual polygonal illumination module components (column 4, lines 30-34 & 47-54; figure 3).</p>							
4.2	Documents D2-D5 also disclose the subject matter of claim 1.							
5.	INDEPENDENT CLAIM 13							
5.1	<p>The present application does not fulfill the requirements of PCT Article 33(1) because the subject matter of claim 13 is not novel within the meaning of PCT Article 33(2).</p> <p>D1 (the references placed in parentheses refer to this document) discloses:</p> <p>An illumination device having a polygonal illumination surface, characterized in that said illumination surface is composed of a plurality of individual polygonal illumination module components (column 4, lines 30-34 & 47-54; figure 3).</p>							
5.2	Documents D2-D5 also disclose the subject matter of claim 13.							
6.	<p>DEPENDENT CLAIMS 2, 4, 8-10, 14, 16, 20-22</p> <p>Claims 2, 4, 8-10, 14, 16, 20-22 do not contain any features which, in combination with the features of any claim to which they refer back, would meet the requirements of PCT Article 33(1) and 33(2) for novelty:</p> <p><u>Claims 2 and 14</u> The additional features are known from D1, D2, D3 and D5.</p> <p><u>Claims 4, 8, 16 and 20</u> The additional features are known from D3 and D5.</p> <p><u>Claims 9, 10, 21 and 22</u> The additional features are known from D4.</p>							
7.	<p>DEPENDENT CLAIMS 3, 5-7, 11, 12, 15, 17-19, 23, 24</p> <p><u>Claims 3 and 15</u> Claims 3 and 15 appear to fulfill the requirements of PCT Article 33(1) since their combination of features is neither known from the available prior art, documents D1-D5, nor suggested by same. The technical problem addressed is that of realizing backlighting</p>							

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/DE2004/000670

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

for a plurality of display sizes.

Claims 5-7 and 17-19

Claims 5 and 6 can only be interpreted as being dependent upon claim 3 (in the case of claim 5, possibly via claim 4 and in the case of claim 6, possibly via claim 4 and/or 5) because the feature of the base assembly is not disclosed until claim 3. Likewise, claims 17 and 18 can only be interpreted as being dependent upon claim 15 (in the case of claim 17, possibly via claim 16, and in the case of claim 18, possibly via claim 16 and/or 17).

When interpreted in this way, claims 5-7 and 17-19 appear to fulfill the requirements of PCT Article 33(1).

Claims 11 and 23

Claim 11 can only be interpreted as being dependent upon claim 10 via claim 4 and/or claim 8 since both features of the optical input coupling member and the luminaire had not been previously disclosed. Likewise, claim 23 can only be interpreted as being dependent upon claim 22 via claim 16 and/or claim 20. The technical problem addressed is: insufficient homogeneous illumination resulting from uneven illumination surfaces due to gaps between illumination modules.

When considered in this way, claims 11 and 23 appear to fulfill the requirements of PCT Article 33(1) since their feature combinations are neither known from the available prior art, documents D1-D5, nor suggested by same.

Claims 12 and 24

Similarly, claims 12 and 24 can only be interpreted as being dependent on claims 11 and 23 since the feature of the riser is not disclosed until claims 11 and 23.

When interpreted in this way, claims 12 and 24 would also appear to fulfill the requirements of PCT Article 33(1).

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/DE2004/000670

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box IV

1. The International Search Authority has determined that this international application contains multiple inventions; as follows:

- i. Claims: 3, 5-7, 15, 17-19
Method for the production of an illumination device and an illumination device wherein the illumination surface is composed of a plurality of individual polygonal illumination module components, and whereby the illumination modules are selected from a base assembly of different-sized illumination modules.
- ii. Claims: 11, 12, 23, 24
Method for the production of an illumination device and an illumination device wherein the thickness of the luminaire adjacent the optical input coupling member is greater than the thickness of the optical input coupling member and a riser is configured such that the illumination module overlaps upon positioning to an illumination surface such that the optical input coupling member is covered by an adjacent illumination module.

2. The search yielded the following prior art relevant to the assessment of unity of invention:

D1: US 5 592 193 A (CHEN HSING-YAO), 7 January 1997 (07-01-1997)
D3: WO 02/42809 A (TRANSVISION INC), 30 May 2002 (30-05-2002)
D4: PATENT ABSTRACTS OF JAPAN, Vol. 0145, No. 77 (P-1146), 21 December 1990 (21-12-1990) & JP 2 247687 A (MATSUSHITA ELECTRIC WORKS LTD), 3 October 1990 (03-10-1990)

- 2.1 Document D1 (the references placed in parentheses refer to this document) discloses the subject matter of claims 1 and 13: Method for the production of an illumination device and an illumination device comprising a polygonal illumination surface, characterized in that said illumination surface is composed of a plurality of individual polygonal illumination module components (column 4, lines 30-34 & 47-54; figure 3).

D1 further discloses the features of claims 2 and 14. Moreover, the subject matter of claims 2, 4, 8, 14, 16 and 20 is known from D3 while the subject matter of claims 9, 10, 21 and 22 is known from D4.

- 2.2 A comparison of the present groups of claims with the cited documents reveals that the following features have contributed to the prior art and can thus be regarded as special technical features within the meaning of PCT Rule 13.2:

- Group I: The illumination modules are selected from a base assembly of differently sized illumination modules (claims 3 and 15).
- Group II: The thickness of the luminaire adjacent the optical input-coupling member is greater than the thickness of the optical input coupling member and a riser is configured such that the illumination module overlaps upon positioning to an illumination surface such that the optical input-coupling member is covered by an adjacent illumination module (claims 11 and 23).

- 2.3 The problems addressed by the special technical features can be regarded as being:

- Group I: Realizing a backlighting for a plurality of display sizes.
- Group II: Insufficient homogeneous illumination resulting from uneven illumination surfaces due to gaps between illumination modules.

These problems differ from one another.

- 2.4 Thus, with regard to both the special technical features and the problem of interest between the cited groups of claims, there is no unity of invention within the meaning of PCT Rule 13.1 and 13.2.